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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,734	02/28/2005	Shintaro Mikami	FP3002-0035	2556
39083 7590 06/18/2009 CERMAK KENEALY VAIDYA & NAKAJIMA LLP 515 EAST BRADDOCK RD SUITE B Alexandria, VA 22314				
EXAMINER				
SINGH, SUNIL K				
ART UNIT		PAPER NUMBER		
3732				
MAIL DATE		DELIVERY MODE		
06/18/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/525,734

**Applicant(s)**

MIKAMI ET AL.

**Examiner**

Sunil K. Singh

**Art Unit**

3732

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5,6 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6 and 10-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. The election/restriction requirement mailed out on 02/05/2009 has been withdrawn by the Examiner.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe the feature of "the entire brush portion is spaced from the light emitting axis" and it is not apparent in figure 2.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crisio, Jr. (5,813,855) in view of Solanki (6,886,207). Crisio, Jr. discloses a toothbrush 10 comprising a head portion 16 with a brush portion located on a brush surface, a toothbrush body 14, and a shaft 12 that connects the head portion and the body, the head portion including an opposed surface that is directly opposed to the brush surface and a side surface that is located between and spaces the opposed surfaced from the brush surface, the body being provided with light emitting means to irradiate light toward the head portion, the shaft being structure to permit the light to transmit along a longitudinal axis of the shaft, a tip end of the head portion provided with a tip-end light transmitting portion that intersects with the longitudinal axis and configured to transmit light from the means outside of the head portion; however, Crisio, Jr. does not show a surface of the head portion including an elastic portion; and wherein the elastic portion covers the opposed surface and entirely covers the side surface of the head portion of the toothbrush except for an opening in the tip end of the head portion.

Solanki teaches a toothbrush having at least a surface of the head portion including an elastic portion 8, the elastic portion being relatively more elastic than the head portion, and wherein the elastic portion covers the opposed surface and entirely covers the side surface of the head portion except for an opening in the tip end of th head portion and thus defining an opening in the elastic portion at a location that intersects with the longitudinal axis (figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the toothbrush of

Crisio, Jr. with the elastic portion of Solanki in order to provide massaging elements in view of Solanki. The brush surface of the head portion on which the brush portion is provided does not include the elastic portion forming a brush-portion light transmitting portion and at least a part of the opposed surface does not include the elastic portion providing a back-surface light transmitting portion. Solanki show elastic body formed from a transparent material (column 4 line 19) (Megol can be transparent). The light emitting means irradiate light along a light emitting axis, and the brush portion is spaced from the axis and it would have been an obvious matter of choice to one of ordinary skill in the art as to having the entire brush portion spaced from the axis.

6. Claims 1,6, 10-13, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crisio, Jr. in view of Inns et al. (5,970,564). Crisio, Jr. discloses a toothbrush 10 comprising a head portion 16 with a brush portion located on a brush surface, a toothbrush body 14, and a shaft 12 that connects the head portion and the body, the head portion including an opposed surface that is directly opposed to the brush surface and a side surface that is located between and spaces the opposed surfaced from the brush surface, the body being provided with light emitting means to irradiate light toward the head portion, the shaft being structure to permit the light to transmit along a longitudinal axis of the shaft, a tip end of the head portion provided with a tip-end light transmitting portion that intersects with the longitudinal axis and configured to transmit light from the means outside of the head portion; however, Crisio, Jr. does not show a surface of the head portion including an elastic portion; and wherein

the elastic portion covers the opposed surface and entirely covers the side surface of the head portion of the toothbrush except for an opening in the tip end of the head portion.

Inns et al. teach a toothbrush having at least a surface of the head portion including an elastic portion 6, the elastic portion being relatively more elastic than the head portion, and wherein the elastic portion covers the opposed surface and entirely covers the side surface of the head portion of the toothbrush except for an opening in the tip end thus defining an opening in the elastic portion at a location that intersects with the longitudinal axis (figures 6 and 9). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the toothbrush of Crisio, Jr. with the elastic portion of Inns et al. in order to provide a massaging effect to the teeth and/or gums in use in view of Inns et al. The brush surface of the head portion on which the brush portion is provided does not include the elastic portion forming a brush-portion light transmitting portion and at least a part of the opposed surface does not include the elastic portion providing a back-surface light transmitting portion. The elastic portion is formed on at least a substantially central region of the opposed surface except on the back-surface light transmitting portion. As understood, the back-surface light transmitting portion is formed to have a cross section curved from an outer periphery of a back surface (figure 6). Inns et al. show the elastic body formed of transparent material (column 4 line 23) (column 5, line 57). The elastic portion includes a side portion located along the side surface and a central portion located a substantially central portion of the opposed surface and defining an opening in the

elastic portion extending about the central portion. The light emitting means irradiate light along a light emitting axis, and the brush portion is spaced from the axis, and it would have been an obvious matter of choice to one of ordinary skill in the art as to having the entire brush portion spaced from the axis.

7. Claims 1, 5, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crisio, Jr. in view of Raven et al. (5,991,959). Crisio, Jr. discloses a toothbrush 10 comprising a head portion 16 with a brush portion located on a brush surface, a toothbrush body 14, and a shaft 12 that connects the head portion and the body, the head portion including an opposed surface that is directly opposed to the brush surface and a side surface that is located between and spaces the opposed surface from the brush surface, the body being provided with light emitting means to irradiate light toward the head portion, the shaft being structure to permit the light to transmit along a longitudinal axis of the shaft, a tip end of the head portion provided with a tip-end light transmitting portion that intersects with the longitudinal axis and configured to transmit light from the means outside of the head portion; however, Crisio, Jr. does not show a surface of the head portion including an elastic portion; and wherein the elastic portion covers the opposed surface and entirely covers the side surface of the head portion of the toothbrush except for an opening in the tip end of the head portion.

Raven et al. teach a toothbrush having at least a surface of the head portion including an elastic portion 6, the elastic portion being relatively more elastic than the head portion, and wherein the elastic portion covers the opposed surface and entirely

covers the side surface of the head portion of the toothbrush except for an opening in the tip thus defining an opening in the elastic portion at a location that intersects with the longitudinal axis (figure 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the toothbrush of Crisio, Jr. with the elastic portion of Raven et al. in order to prevent damage of the teeth or surrounding soft tissue due to excessive force or brushing frequency in view of Raven et al. Raven et al. show an embodiment having the elastic portion including a shaft elastic body on the shaft in the vicinity of the head portion and a surface of the shaft not including the elastic body (figure 16). The light emitting means irradiate light along a light emitting axis, and the brush portion is spaced from the axis, and it would have been an obvious matter of choice to one of ordinary skill in the art as to having the entire brush portion spaced from the axis.

8. Claims 14-17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Crisio, Jr. in view of Inns et al. and further in view of Raven et al. The modified toothbrush of Crisio, Jr. and Inns et al. shows the limitations as described above; however, they do not show the elastic portion including a shaft elastic body on the shaft. Raven et al. show an embodiment having the elastic portion including a shaft elastic body on the shaft in the vicinity of the head portion and a surface of the shaft not including the elastic body (figure 16). It would have been obvious to one having ordinary skill in the art to further modify the toothbrush to have the shaft elastic body in



order to further encase portion of the shaft with elastic material and provide surface to prevent damage of teeth and soft tissue.

### ***Response to Arguments***

9. Applicant's arguments filed 11/14/2008 have been fully considered but they are not persuasive. Applicant argues that Crisio does not disclose the light being transmitted from the tip end of the toothbrush since the light is emitted through the bristle end. However, according to *Merriam Webster Dictionary*, the term "tip" is defined as "a small piece or part serving as an end, cap, or point." According to this definition, it is the Examiner's position that the bristle end of the head of the toothbrush can qualify to mean the "tip" of the toothbrush.

Applicant further argues that Solanki and Inns does not teach the toothbrush being made of transparent material. However, in Solanki reference, it teaches that the toothbrush can be made of Megol and Santoprene (column 4, line 18) which are known to be translucent and transparent. Furthermore, Inns does in fact teach the toothbrush to be made of a transparent material as indicated in column 5, line 57. Therefore, it is the Examiner's position that both references meet the required limitation.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil K. Singh whose telephone number is (571) 272-3460. The examiner can normally be reached on Monday-Friday (Increased Flex Schedule).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris L. Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

06/16/2009

/Sunil K Singh/  
Examiner, Art Unit 3732

/Ralph A. Lewis/  
Primary Examiner, Art Unit 3732